

## NATURAL RESOURCES CONSERVATION SERVICE

### CONSERVATION PRACTICE SPECIFICATION

#### VERTICAL DRAIN

(no.)  
CODE 630

#### SCOPE

This specification covers the installation of vertical drains to dispose of drainage water into a porous, underlying strata. Construction shall be in conformance with the plans and these specifications.

#### INSTALLATION

**Materials.** Materials for vertical drains shall meet the requirements shown on the plans.

**Graded fill.** Graded fill materials shall be sand, cinders, crushed rock, or rock and shall be placed as specified on the plans. The graded fill material shall be free of all sod, roots, trees, stumps, debris, and organic material. Rock material for the fill may be taken from the hole in which the drain will be installed or it may be brought in.

**Reinforced concrete.** Concrete mix, if needed, shall be: 1 sack cement (1 cubic foot), 2 cubic feet sand, 3 1/2 cubic feet gravel and 6 gallons water. For larger jobs concrete will be proportioned and mixed to produce a 28-day strength of 3,000 pounds per square inch or greater. Concrete shall be cured by keeping exposed surfaces wet for a minimum of 7 days or by applying an acceptable curing compound. Reinforcing steel shall be placed as indicated on the plans and held securely in place during concrete placement. Subgrades and forms are to be installed to lines and grades and the forms are to be mortar tight and unyielding as the concrete is placed.

All concrete shall be vibrated or rodded in the forms. Concrete surfaces shall be finished to where no voids, honeycombed areas, rough edges or obstructions exist.

#### SAFETY

Landowners or operators, sponsoring organizations, and contractors are liable for damage to utilities and damage resulting from disruption of service caused by construction activities. The Natural Resources Conservation Service makes no representation on the existence or nonexistence of any utilities. Absence of utilities on the drawings is not assurance that no utilities are present at the site.

It's the responsibility of the landowner or operator to determine if there are buried or overhead utilities in the vicinity of the proposed work. They should take proper procedure to insure that the utilities will not be jeopardized and that equipment operators and others will not be injured during construction operations.